

REMARKS

Claim 1 - 8, 12 - 21, 24 - 28, 30 - 33, and 36 - 39 are pending. Claims 1 - 8, 12 - 17, 21, 24, 27 - 28, 31 - 33, and 36 have been amended. Claims 9 - 11, 22 - 23, 29, and 34 - 35 have been cancelled. Claims 37 - 39 have been added. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the August 13, 2003 Office Action, the Examiner rejected claims 25 - 26 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,283,819 to Glick (the Glick reference). The Examiner rejected claims 1 - 8, 11 - 12, 15, 18 - 20, 24, and 30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,792,971 to Timis (the Timis reference) in view of the Glick reference. The Examiner rejected claims 9 - 10, 27 - 29, 32, and 36 under 35 U.S.C. 103(a) as being unpatentable over the Timis reference and in view of U.S. Patent 5,774,567 to Heyl (the Heyl reference). The Examiner rejected claims 16 - 17 under 35 U.S.C. § 103(a) as being unpatentable over the Timis reference as modified by the Glick reference and further in view of U.S. Patent No. 6,314,326 to Fuchu (the Fuchu reference). The Examiner rejected claims 13 - 14, and 21 - 23, 31, and 33 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,524,060 to Silfvast in view of the Timis reference and further in view of the Glick reference. The Examiner rejected claims 34 - 35 under 35 U.S.C. § 103(a) as being unpatentable over the Silfvast reference in view of the Timis reference, and further in view of the Heyl and Glick references. These rejections are respectfully traversed.

Embodiments of the present invention relate to a system interconnecting a computer and an audio device, which may operate independently of each other. The computer and the audio device may cooperate with each other so that computer audio data supplied from the computer are sent to the audio device via a serial bus such as the Universal Serial Bus (USB) and are reproduced in the audio device even if the audio device selects a source other than the computer. The audio device may be an audio component stereo system providing at least one audio source such as a tuner or a recording media, which provides the audio source audio data. The audio device performs mixing between the audio source audio data and the computer audio data based on control data. Speakers produce sounds based on the mixing results.

Independent claim 25 recites:

A control method for an audio device, comprising:

creating a graphic user interface for controlling the audio device to allow selection of an audio source with respect to an audio device and **to allow mixing of audio data of the selected audio source together with other audio data created by a computer;**

outputting control data to the audio device based on operation of the graphical user interface;

receiving information regarding operation of the graphical user interface as the control data, and providing the control data to the graphical user interface; and

outputting the audio data to the audio device.

The Glick reference does not disclose, teach, or suggest the control method of claim 25. The section of the Glick reference identified by the Examiner as disclosing the control method of claim 25 is directed to a multimedia graphical user interface system. The Glick reference multimedia graphical user interface (GUI) software supports audio inputs and outputs as well as digitally sampled sound. Audio input can be used for creating sampled sound for voice annotations as well as basic music multimedia products. The sampled audio can also be played back via disk, such as a compact disk. (*Glick, col. 34, lines 22 - 50.*)

This is not the same as a control method for an audio device, including creating a graphic user interface for controlling the audio device to allow selection of an audio source with respect to an audio device and **to allow mixing of audio data of the selected audio source together with other audio data created by a computer.**

There is no specific discussion in the Glick reference of any mixing of audio data from audio sources. **Further, there is no specific discussion of mixing the audio data of the selected audio source together with audio data created by the computer.**

According, applicants respectfully submit that claim 25 distinguishes over the Glick reference.

Independent claim 26 recites similar limitations to independent claim 25. Accordingly, applicants respectfully submit that independent claim 26 distinguishes over the Glick reference for similar reasons as discussed above in regard to independent claim 25.

Claim 1, as amended, recites:

An audio system comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device; and

data transmission means for linking the audio device and the computer together to transmit data therebetween, wherein,

said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission means,

and said audio device includes

a first system portion for processing audio source audio data that is provided by an audio source other than the computer,

a second system portion for processing the computer audio data created by the computer, and

a mixing circuit for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second sound system portions,

wherein said audio device, including the first system portion and the second system portion, and said computer are located in independent and separate devices.

The Timis reference does not disclose, teach, or suggest the audio system of claim 1, as amended. The Examiner cites that the Timis reference teaches an audio device (the Examiner cites that three different pieces of the Timis system could be

audio devices: 1) the CD drive 19; 2) the microphone 152; and 3) the MIDI keyboard synthesizer); a computer for creating computer audio data and control data for operating the audio device (the computer being a Macintosh device or a personal computer running DOS); and data transmission means for linking the audio device and the computer to transmit data there between (the bus 122 transmits data between the CD-ROM and the computer). (*August 13 Office Action, page 4*).

The Timis reference does not concern an audio system including an audio device; a computer for creating computer audio data and control data for operating the audio device; and data transmission means for linking the audio device and the computer together to transmit data therebetween, said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission bus, and said audio device includes a first system portion for processing audio source audio data that is provided by an audio source other than the computer, **a second system portion for processing the computer audio data created by the computer, and mixing means for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second sound system portions, and wherein said audio device, including the first system portion and the second system portion, and said computer are located in independent and separate devices.**

If the CD-ROM 19 of the Timis reference is the audio device (as cited by the Examiner on page 2), then the audio device is located within the computer. In contrast, the audio device of claim 1, as amended, is physically separate from the computer.

If the microphone 152 or the MIDI apparatus 180 is the audio device, then, as the Examiner states, the Timis reference does not disclose a second system portion for processing the computer audio data created by the computer and mixing means for performing mixing of the audio source data and the computer audio data. (*See August 13 Office Action, page 4*).

In addition, because the Timis reference does not include a second system portion for processing the computer audio data, the Timis reference cannot disclose **said audio device, including the first system portion and the second system portion, and said computer are located in independent and separate devices.** Accordingly, applicants respectfully submit that independent claim 1, as amended, distinguishes over the Timis reference.

The Glick reference does not make up for the deficiencies of the Timis reference. The Glick reference is directed towards a personal computer including an entertainment circuit 12 made up of a radio frequency circuit 48, a television circuit 46, and audio multimedia circuit 18. In the chassis of the personal computer is the radio frequency circuit, the television circuit, and the audio multimedia circuit. (*Glick, col. 2, lines 12 - 30.*) The Glick reference cites "one technical advantage of the present invention is that it provides in a single chassis or platform can effectively integrated multimedia and telecommunications applications for entertainment purposes. (*Glick, col. 2, lines 65 - 67.*) Fig. 5 illustrates a block diagram of the audio multimedia circuitry that performs the multi-media functions, which include an audio CD player, an audio control center, a digital audio recorder, a music synthesizer, and on-board analog audio mixing capabilities. The audio multi-media portion of the multi-media communications

workstation comprises a CD-ROM and the audio multimedia board. (*Glick, col. 11, lines 56 - 64.*) A SCSI interface provides DMA transfer of 8 bits and PIO transfer of 16-bits with interrupts to control the CD-ROM 28. (*Glick, col. 12, lines 56- 58*).

This is not the same as an audio system including an audio device; a computer for creating computer audio data and control data for operating the audio device; and data transmission bus for linking the audio device and the computer together to transmit data therebetween, **said audio device includes a first system portion for processing audio source audio data that is provided by an audio source other than the computer, a second system portion for processing the computer audio data created by the computer, and mixing means for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second sound system portions, wherein said audio device including the first system portion and the second system portion and said computer are located in independent and separate devices.**

It is not the same because the Glick audio multi-media circuit or portion, akin to the audio device of claim 1, is integrated into the computer, i.e., it is installed within the computer chassis. The audio multimedia portion is mainly installed on a circuit board inside the computer. Thus, the audio device disclosed in Glick is not physically separate from the computer. In contrast, the audio device of claim 1 is physically separate from the computer. Accordingly, applicants respectfully submit that independent claim 1, as amended, distinguishes over the Glick reference, alone or in combination, with the Timis reference.

The Heyl reference does not make up for the deficiencies of the Timis and the Glick references. The Heyl reference is directed to an audio codec, which supports sophisticated multimedia functions within personal computers, and is capable of handling complex control and routing of numerous sound inputs. (*Heyl, col. 1, lines 7 - 9; lines 53 - 55*). The Heyl reference discloses that a user of the personal computer can have the ability to provide separate volume adjustments for inputs and outputs.

This is not the same as an audio system including an audio device; a computer for creating computer audio data and control data for operating the audio device; and data transmission means for linking the audio device and the computer together to transmit data therebetween, **said audio device includes a first system portion for processing audio source audio data that is provided by an audio source other than the computer, a second system portion for processing the computer audio data created by the computer, and mixing means for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second sound system portions, wherein said audio device, including the first system portion and the second system portion, and said computer are located in independent and separate devices.** It is not the same because the Heyl reference is discussing a digital mixing means that is installed inside the computer, and not a mixing means installed in the audio device. It is also not the same because the Heyl reference is only disclosing a computer with multimedia capabilities and not a computer and an audio device. Accordingly, applicants respectfully submit that independent claim 1 distinguishes over the Heyl reference, alone or in combination with the Timis and the Glick references.

The Examiner states that it would have been obvious to one skilled in the art to utilize the teaching of Timis in the Glick reference to provide the combining of computing technology with multimedia and telecommunication technologies for a wide variety of entertainment purposes. (*August 13 Office Action, page 5*).

It is respectfully submitted that it would not have been obvious to one skilled in the art to combine the teachings of the Timis reference and the Glick reference, as suggested by the Examiner. It is well-settled that a reference must provide some motivation or reason for one skilled in the art (working without the benefit of the applicant's specification) to make the necessary changes in the disclosed device. The mere fact that a reference may be modified in the direction of the claimed invention does not make the modification obvious unless the reference expressly or implicitly teaches or suggests the desirability of the modification. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 – 1318 (Fed. Cir. 2000); In re Fitch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); In re Mills, 16 U.S.P.Q.2d 1430, 1432 (Fed. Cir. 1990). Absent such a showing in the prior art, the Examiner has impermissibly used hindsight by using the applicant's teaching as a blueprint to hunt through the prior art for the claimed elements and combine them as claimed. In re Vaeck, 947 F.2d 488, 20 U.S.P.q.2d 1438 (Fed. Cir. 1991); Grain Processing Corp. v. American Maize Products, 840 F.2d 902, 907, 5USP!2d 1788, 1792 (Fed. Cir. 1988).

The Timis reference does not explicitly or implicitly teach or suggest the desirability of the modification suggested by the Examiner, i.e., Glick disclosing the utilization of a second system portion for processing the audio data created by the computer and mixing means for performing mixing of the audio source audio data and the computer data. The Timis reference is directed to providing a method of editing digital audio information so that original

digital audio material can be changed into new digital audio material having musical characteristics that correspond to the edited musical parameters. There is no motivation or desirability to include mixing of the audio source audio data, like from the Timis microphone or MIDI device, with computer audio data created by the computer. The Timis reference mixes audio data supplied by the microphone with data supplied by the MIDI device, and not audio data created by the computer.

In addition, the combination of the Timis reference with the Glick reference would destroy the purpose and intent of the invention disclosed in the Timis reference. This would be a disincentive for combining the references. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The Glick reference discloses the utilization of a single computer to perform all audio multimedia functions and includes an internal MIDI interface. The Timis reference utilizes external devices such as MIDI device and a MIDI interface to supply MIDI information to the computer via a serial interface. It would destroy the intent of the Glick reference to receive MIDI information through an external interface and serial port because a mechanism already exists in the Glick reference to handle MIDI inputs.

Furthermore, the Glick reference teaches away from the present invention. The Glick reference discloses a computer including an audio multimedia circuit. The present invention is directed to an audio system including a computer and an audio device, where the computer is separate from the audio device. The opposite of having an audio device inside a personal computer, as disclosed by the Glick reference, is having an audio device external to the personal computer, as disclosed in the present invention. Teaching away from the art is a per se demonstration of the lack of prima

facie obviousness. *In re Dow Chemical Co.*, 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988). Accordingly, applicants believe the combining of the Timis reference and the Glick reference is improper for independent claim 1 and also for independent claims 2, 12, 13, 15, 21 and 24. .

Independent claims 2 and 24, as amended, recite similar limitations to independent claim 1, as amended. Accordingly, applicants submit that independent claims 2 and 24 distinguish over the Timis reference, alone or in combination, with the Glick and Heyl references, for similar reasons as discussed above in regard to independent claim 1, as amended.

Claims 3, 5, and 7 depend, directly or indirectly, from independent claim 1, as amended. Claims 4, 6, and 8 depend, directly or indirectly, from independent claim 2, as amended. Claim 36 depends directly from independent claim 24, as amended. Accordingly, applicants respectfully submit that dependent claims 3 - 8 and 36 distinguish over the Timis reference, the Glick reference, and the Heyl reference, alone or in combination, for the same reasons as discussed above in regard to independent claims 1, 2, and 24, all as amended.

Independent claim 15, as amended, recites:

An audio system, comprising:
an audio device for producing first audio data in connection with at
least one audio source,
external serial bus means, and
a personal computer, for creating second audio data and control
data,

wherein the audio device further includes a selection unit for selecting one of the first audio data and the second audio data, a signal processing block for performing signal processing on output of the selection device, an adjustment unit for performing adjustment on the second audio data with respect to sampling parameters, a digital mixing circuit for performing digital mixing between output of the signal processing means and output of the adjustment means, and a digital-to-analog converter for converting result of the digital mixing to analog signals, and a speaker for producing the sound based on the analog signals.

The Timis reference does not disclose, teach, or suggest the audio system of claim 15, as amended. As cited by the Examiner, the MIDI device 180 is the audio device which produces first audio data in connection with at least one audio means. (*August 13 Office Action, page 9*). The MIDI interface 170 which is connected between the MIDI device 180 and the personal computer, (1) receives user input from the keyboard of the MIDI device and redirects the data to the computer and (2) receives data via bus 122 and outputs MIDI data to the synthesizer part of the keyboard device. (Timis, col. 6, lines 57 - 63). This is not the same as an audio system including an audio device **wherein the audio device further includes a selection unit for selecting one of the first audio data from the audio device and the second audio data from the computer, and a signal processing block for performing signal processing on output of the selection device, and an adjustment unit for performing adjustment on the second audio data with respect to sampling parameters.** It is not the same because the MIDI device of the Timis reference does

not include a selection unit for selecting one of the first audio data (from the audio device) and the second audio data (from the computer). The Timis reference is not found to discuss selection at all. Further, there is no disclosure of signal processing the output of the selection device, or performing adjustments on the second audio data with respect to sampling parameters. Accordingly, applicants respectfully submit that claim 15, as amended, distinguishes over the Timis reference.

The Glick reference does not make up for the deficiencies of the Timis reference. The Examiner utilizes the Glick reference to show that a personal computer creates second audio data and control data. (*August 13 Office Action, page 10*). Assuming, *arguendo*, that the Glick reference does show a personal computer that creates second audio data and control data, the Glick reference still does not disclose or discuss an audio device **wherein the audio device is located in a device separate from the computer and further includes a selection unit for selecting one of the first audio data from the audio device and the second audio data from the computer, and a signal processing block for performing signal processing on output of the selection device, and an adjustment unit for performing adjustment on the second audio data with respect to sampling parameters.** Instead, the Glick reference discloses a personal computer including an audio multimedia circuit and does not disclose an audio device in a device separate from the computer. Because there is no separate audio device, there cannot be a selection unit, a signal processing block, or an adjustment unit. Accordingly, applicants respectfully submit that claim 15 distinguishes over the Glick reference, alone or in combination with the Timis reference.

The Heyl reference does not make up for the deficiencies of the Timis and Glick references. The Examiner utilizes the Heyl reference to show that an external serial bus transmits the second audio data and the control data digitally. (*August 13 Office Action, page 14*). Assuming, arguendo, that the Heyl reference shows that an external serial bus means transmits the second audio data and the control data digitally, the Heyl reference still does not shown an audio system including an audio device **wherein the audio device further includes a selection unit for selecting one of the first audio data from the audio device and the second audio data from the computer, and a signal processing block for performing signal processing on output of the selection device, and an adjustment unit for performing adjustment on the second audio data with respect to sampling parameters.**

The audio device of the Heyl reference, normally internal to the Heyl reference computer, is not found to disclose **a selection unit for selecting one of the first audio data from the audio device and the second audio data from the computer.**

Instead, the various sound inputs in the Heyl reference are weighted and then the weighted inputs are digitally mixed together. Accordingly, applicants respectfully submit that claim 15, as amended, distinguishes over the Heyl reference, alone or in combination with the Timis reference and the Glick reference.

Claim 32 depends directly on independent claim 15, as amended. Accordingly, applicants respectfully submit that claim 32 distinguishes over the Timis, Glick, and Heyl references, alone or in combination, for the same reasons as discussed above in regard to claim 15.

Independent claim 12, as amended recites:

An audio system, comprising:

an audio device for producing first audio data in connection with at least one audio source,

an external serial bus, and

a personal computer, for creating second audio data and control data,

wherein the **audio device is in a separate device from the personal computer and the audio device performs mixing between the first audio data and the second audio data**, which is transmitted thereto via the external serial bus, **on the basis of the control data transmitted from the personal computer**, so that speaker means produces sound based on mixing results.

The Timis reference does not disclose, teach, or suggest the audio system of the claim 12, as amended. The Timis reference does not concern an audio system including an audio device and a personal computer, wherein the **audio device performs mixing between the first audio data and the second audio data**, which is transmitted thereto via the external serial bus, **on the basis of the control data transmitted from the personal computer**.

Instead, the Timis reference discloses the mixing of the sound output of the MIDI device, akin to the first audio data, is connected to amplifier speakers 162 where it is mixed with the sound output of the D/A converters, the sound output being akin to the second audio data. **This is not the same as an audio device in a separate device from the personal computer and performing mixing between the first audio data**

and the second audio data, the second audio data being transmitted to the audio device via the external serial bus, on the basis of the control data transmitted from the personal computer. First, the Timis reference does not disclose that the output of the D/A converters, akin to the computer data, includes control data. Further, the second audio data, as shown in Fig. 2 of the Timis reference, is directly transmitted to the speakers and not to the audio device. Accordingly, applicants respectfully submit that independent claim 12, as amended, distinguishes over the Timis reference.

The Glick reference does not make up for the deficiencies of the Timis reference. The Examiner utilizes the Glick reference to show that a personal computer creates second audio data and control data. (*August 13 Office Action, page 19*).

Assuming, *arguendo*, that the Glick reference does show a personal computer that creates second audio data and control data, the Glick reference still does not disclose or discuss an audio system including a computer and an audio device, wherein the **audio device is in a device separate from the computer and the audio device performs mixing between the first audio data and the second audio data, which is transmitted thereto via the external serial bus, on the basis of the control data transmitted from the computer**, so that speaker produces sound based on mixing results. Instead, the Glick reference discloses a personal computer including an audio multimedia circuit and does not disclose an audio device in a device separate from the computer. Because there is no separate audio device, mixing cannot be performed between the first audio data and the second audio data. Accordingly, applicants respectfully submit that claim 12, as amended, distinguishes over the Glick reference, alone or in combination with the Timis reference.

The Fuchu reference does not make up for the deficiencies of the Timis and Glick reference. The Examiner utilizes the Fuchu reference to show that an audio system includes an external serial bus means and that the external serial bus means may be a universal serial bus or an IEEE 1394 serial bus. (*August 13 Office Action, page 17*). Applicants respectfully disagree that the Fuchu reference discloses that the external serial bus may be a universal serial bus, because the Fuchu reference discloses only that a communication buffer is connected via a universal serial bus to a microcontroller and the mother board within the personal computer. The Fuchu reference is not found to disclose an external universal serial bus connection. In addition, the Fuchu reference does not disclose an audio system including a computer and an audio device, wherein the **audio device is in a device separate from the computer and the audio device performs mixing between the first audio data and the second audio data, which is transmitted thereto via the external serial bus, on the basis of the control data transmitted from the computer.** The Fuchu reference is not found to disclose mixing at all. The Fuchu reference discloses receiving information from a DC module, a tape module, a DVD-ROM module and playing it on speakers hooked up to a computer or, if the device is not IEEE-1394 compatible, playing it on an amplifier after it passes through a selector device. However, there is no discussion of mixing music from different sources. The Fuchu reference is more directed towards retrieving music from an input source and playing music at speakers by a computer or by an amplifier. In addition, since there is no mixing, the **mixing cannot be controlled based on the control data sent from the computer.** Accordingly, applicants respectfully submit that independent claim 12, as amended,

distinguishes over the Fuchu reference, alone or in combination with the Timis and Glick references.

Claims 16 - 20 and 30 depend, directly or indirectly, from independent claim 12, as amended. Accordingly, applicants respectfully submit that dependent claims 16 - 20 and 30 distinguish over the Timis, Glick, and Fuchu references, alone or in combination, for the same reasons as discussed above in regard to independent claim 12, as amended.

Dependent claim 16 further distinguishes over the Timis, Glick, and Fuchu references, alone or in combination. Dependent claim 16 recites:

An audio system according to claim 12, wherein the external serial bus means corresponds to a universal serial bus.

The Examiner utilizes the Fuchu reference to disclose that the external serial bus means corresponds to a universal serial bus. (*August 13 Office Action, page 17*). Applicants respectfully submit that the Fuchu reference discloses the use of a universal serial bus internal to the computer where a communication buffer 73 is connected to a Universal Serial bus and the communication buffer is located between a microcontroller and the motherboard. (*Fuchu, col. 7, lines 53 - 58*). This is not the same as an external serial bus means corresponding to a universal serial bus because the Fuchu's reference use of the universal serial bus is internal to a PC module, not external. Accordingly, applicants respectfully submit that dependent claim 16 further distinguishes over the Timis, Glick, and Fuchu references, alone or in combination.

Independent claim 13 recites:

An audio system, comprising:

an audio device for producing first audio data in connection with at least one audio source,

an external serial bus, and

a personal computer, for creating second audio data and control data,

wherein the audio device is in a device separate from the computer and further includes a selecting unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via the external serial bus, a signal processing block for performing signal processing on output of the selection unit, a first digital-to-analog converter for converting output of the signal processing device to first analog signals, a second digital-to-analog converter for converting the second audio data from the personal computer to second analog signals, and an analog mixing circuit for performing analog mixing between the first analog signals and the second analog signals, whereby a speaker produces sound based on the result of the analog mixing.

The Silfvast reference is directed to a system for management of the operator interface sub-system 59 by a PC-compatible microcomputer connected to an amplifier 51 by a serial link, wherein the amplifier unit 51 has an on-board microprocessor dedicated to digital signal processing. (*Silfvast*, col. 9, lines 26 - 35.) The system describes audio input on line 53 being routed to a voltage controlled amplifier 125 which

alters the signal according to variations in voltage V_c on line 127 and provides output on line 55. Control voltage V_c is provided by Digital Signal Processor 129 following the transfer characteristic programmed at the operator interface. The transfer characteristic is recorded in RAM 131 in a look-up table transferred from RAM 69 in computer 54 at frequent intervals via the serial link.

The Silfvast reference does not disclose, teach, or suggest the audio system of claim 13, as amended. The Silfvast reference does not concern an audio system, including: an audio device for producing first audio data in connection with at least one audio source, an external serial bus, and **a personal computer, for creating second audio data** and control data, wherein the audio device is in a device separate from the computer further includes **a selection unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via the external serial bus**, a signal processing block for performing signal processing on output of the selection unit, a first digital-to-analog converter for converting output of the signal processing block to first analog signals, **a second digital-to-analog converter for converting the second audio data from the personal computer to second analog signals**, and **an analog mixing circuit for performing analog mixing between the first analog signals and the second analog signals**, whereby a speaker produces sound based on the result of the analog mixing.

Instead, the personal computer in the Silfvast reference transmits a transfer characteristic, arguable a control signal or data, to the audio device. This is not the same as a computer for creating audio data and control data, because the Silfvast reference computer does not send audio data to the computer. In fact, the Examiner

states that the Silfvast reference does not teach that second audio data is created from the personal computer. (*August 13 Office Action, page 18.*) Thus, the Silfvast reference cannot include **a selection unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via the external serial bus** because the Silfvast reference does not disclose the computer transmitting audio signals over the external serial bus. The Examiner identifies that a switch 143 is the selecting means for selecting one of the first audio data and the second audio data (*August 13 Office Action, page 18*). Applicants assert that the switch 143 does not allow the selection of the second audio data from the personal computer. Accordingly, applicants respectfully submit that claim 13, as amended, distinguishes over the Silfvast reference.

The Timis reference does not make up for the deficiencies of the Silfvast reference. The Examiner utilizes the Timis reference to show that a personal computer audio source creates second audio data, produces digital audio data, and then converts the data to an analog format. (*August 13 Office Action, page 18*). Assuming, *arguendo*, that the Silfvast reference discloses all of the feature identified by the Examiner, the Timis reference still is not found to disclose an audio system including an audio device for producing first audio data in connection with at least one audio source, an external serial bus, and a personal computer, for creating second audio data and control data, wherein the audio device further includes **a selection unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via the external serial bus**. The Timis reference does not disclose selection means for selecting between one of the first audio data (from the audio input 53) and

the second audio data (from the computer). Accordingly, applicants respectfully submit that independent claim 13, as amended, distinguishes over the Timis reference, alone or in combination with the Silfvast reference.

The Glick reference does not make up for the deficiencies of the Silfvast and Timis references. The Examiner utilizes the Glick reference to show a personal computer that creates second audio data and control data. (*August 13 Office Action, page 19*). Assuming, *arguendo*, that the Glick reference discloses all of the features that the Examiner has identified, the Glick reference does not disclose an audio system including an audio device for producing first audio data in connection with at least one audio source, an external serial bus, and a personal computer, for creating second audio data and control data, wherein the audio device is in a device separate from the computer and further includes a **selection unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via an external serial bus means from the computer**. The Glick reference is directed to a computer including an audio multimedia circuit and thus does not disclose an audio device separate from the computer. Because the Glick reference does not disclose an audio device, there can not be an audio device including a selection unit. Accordingly, applicants respectfully submit the independent claim 13, as amended, distinguishes over the Glick reference, alone or in combination with the Silfvast and Timis references.

The Heyl reference does not make up for the deficiencies of the Silfvast, Timis, and Glick references. The Examiner utilizes the Heyl reference to show that an audio device interface for inputting the computer audio data is a digital interface. (*August 13 Office Action, page 20 and 21*). Assuming, *arguendo*, that the Heyl reference shows

that the audio device interface for inputting the computer audio data is a digital interface, the Heyl reference still does not shown an audio system including an audio device for producing first audio data in connection with at least one audio source, an external serial bus, and a personal computer, for creating second audio data and control data, wherein the audio device is in a device **separate from the computer and further includes a selection unit for selecting one of the first audio data and the second audio data, which is transmitted thereto via the external serial bus.**

The audio device of the Heyl reference, normally internal to the Heyl reference computer, is not found to disclose **a selection unit for selecting one of the first audio data from the audio device and the second audio data from the computer.**

Instead, the various sound inputs in the Heyl reference are weighted and then the weighted inputs are digitally mixed together. Mixing means both signals are utilized and thus one is not selected. Accordingly, applicants respectfully submit that claim 13, as amended, distinguishes over the Heyl reference, alone or in combination with the Silfvast, Timis, and Glick references.

Independent claim 21 recites similar limitations to independent claim 13, as amended. Accordingly, applicants respectfully submit that independent claim 21, as amended, distinguishes over the Silfvast, Timis, Glick, and Heyl references, alone or in combination, for similar reasons as discussed above in regard to the independent claim 13, as amended.

Claims 14 and 31, and claim 33 depend, directly or indirectly from independent claims 13 and 21. Accordingly, applicants respectfully submit that dependent claims 14, 31, and 33 distinguish over the Silfvast, Timis, Glick, and Heyl references, alone or

in combination, for the same reasons as discussed above in regard to independent claims 13 and 21.

Claims 37 - 39 have been added. Claims 37 - 39 are independent claims 1, 15, and 21 with an additional limitation added in. The additional limitation includes a tuner unit for producing the audio device audio data or first audio data. Representative claim 37 recites:

An audio system comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device; and

a data transmission bus for linking the audio device and the computer together to transmit data therebetween,

wherein said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission bus,

and wherein said audio device includes

a first system portion for processing audio source audio data that is provided by a tuner unit integrated in the audio device,

a second system portion for processing the computer audio data created by the computer,

a mixing circuit for performing mixing of the audio source audio data from the tuner unit and the computer audio data, which are respectively processed by the first and second sound system portions,

and

wherein said audio device, including the first system portion and the second system portion, and said computer are located in separate devices, the separate devices being capable of operating independently.

Independent claims 37 - 39 distinguish over the cited references, i.e., Timis, Glick, Silfvast, Fuchu, and Heyl, for the reasons discussed above in regard to independent claims 1, 15, and 21. In addition, independent claims 37 - 39 distinguish over the cited references, because none of the cited references include a computer and an audio device, wherein the audio device and computer are located in separate devices and **wherein the audio device includes a tuner unit as a signal source**. The Timis reference includes a microphone and a MIDI device as the audio devices and hence the signal sources. The Glick reference does not have a separate audio device so the audio device cannot have a tuner unit as a signal source. The Silfvast reference does not disclose a tuner unit. The Heyl reference does not disclose a tuner unit. In addition, the Fuchu reference is not found to disclose an audio amplifier and many other modules (CD, tape, DVD, audio selector), but not a tuner unit. Accordingly, applicants respectfully submit that independent claims 37 - 39 distinguish over all of the cited references.

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Applicants believe that the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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